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NEWS 4	AUG 24	ENCOMPLIT/ENCOMPLIT2 reloaded and enhanced
NEWS 5	AUG 24	CA/CAplus enhanced with legal status information for U.S. patents
NEWS 6	SEP 09	50 Millionth Unique Chemical Substance Recorded in CAS REGISTRY
NEWS 7	SEP 11	WPIDS, WPINDEX, and WPIX now include Japanese FTERM thesaurus
NEWS 8	OCT 21	Derwent World Patents Index Coverage of Indian and Taiwanese Content Expanded
NEWS 9	OCT 21	Derwent World Patents Index enhanced with human translated claims for Chinese Applications and Utility Models
NEWS 10	NOV 23	Addition of SCAN format to selected STN databases
NEWS 11	NOV 23	Annual Reload of IFI Databases
NEWS 12	DEC 01	FRFULL Content and Search Enhancements
NEWS 13	DEC 01	DGENE, USGENE, and PCTGEN: new percent identity feature for sorting BLAST answer sets
NEWS 14	DEC 02	Derwent World Patent Index: Japanese FI-TERM thesaurus added
NEWS 15	DEC 02	PCTGEN enhanced with patent family and legal status display data from INPADOCDB
NEWS 16	DEC 02	USGENE: Enhanced coverage of bibliographic and sequence information
NEWS 17	DEC 21	New Indicator Identifies Multiple Basic Patent Records Containing Equivalent Chemical Indexing in CA/CAplus
NEWS 18	JAN 12	Match STN Content and Features to Your Information Needs, Quickly and Conveniently
NEWS 19	JAN 25	Annual Reload of MEDLINE database
NEWS 20	FEB 16	STN Express Maintenance Release, Version 8.4.2, Is Now Available for Download
NEWS 21	FEB 16	Derwent World Patents Index (DWPI) Revises Indexing of Author Abstracts
NEWS 22	FEB 16	New FASTA Display Formats Added to USGENE and PCTGEN
NEWS 23	FEB 16	INPADOCDB and INPAFAMDB Enriched with New Content and Features
NEWS 24	FEB 16	INSPEC Adding Its Own IPC codes and Author's E-mail Addresses

NEWS EXPRESS FEBRUARY 15 10 CURRENT WINDOWS VERSION IS V8.4.2,
AND CURRENT DISCOVER FILE IS DATED 15 JANUARY 2010.

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=> file medline embase biosis caplus
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                                                      ENTRY    SESSION
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=> s COLGAN T?/AU
L1          336 COLGAN T?/AU

=> s l1 and chaperonin(w)10
L2           30 L1 AND CHAPERONIN(W) 10

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3           10 DUP REM L2 (20 DUPLICATES REMOVED)

=> s SIU K?/AU
L4          942 SIU K?/AU

=> s l4 and chaperonin(w)10
L5           32 L4 AND CHAPERONIN(W) 10

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6           11 DUP REM L5 (21 DUPLICATES REMOVED)

=> s ROMASCHIN A?/AU
L7          352 ROMASCHIN A?/AU

=> s l7 and chaperonin(w)10
L8           30 L7 AND CHAPERONIN(W) 10
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=> dup rem l8
PROCESSING COMPLETED FOR L8
L9           10 DUP REM L8 (20 DUPLICATES REMOVED)

=> s YANG E?/AU
L10        3303 YANG E?/AU

=> s l10 and chaperonin(w)10
L11           9 L10 AND CHAPERONIN(W) 10

=> dup rem l11
PROCESSING COMPLETED FOR L11
L12           3 DUP REM L11 (6 DUPLICATES REMOVED)

=> s DESOUZA L?/AU
L13         245 DESOUZA L?/AU

=> s l13 and chaperonin(w)10
L14          28 L13 AND CHAPERONIN(W) 10

=> dup rem l14
PROCESSING COMPLETED FOR L14
L15           8 DUP REM L14 (20 DUPLICATES REMOVED)

=> s DIEHL G?/AU
L16         119 DIEHL G?/AU

=> s l16 and chaperonin(w)10
L17          12 L16 AND CHAPERONIN(W) 10

=> dup rem l17
PROCESSING COMPLETED FOR L17
L18           3 DUP REM L17 (9 DUPLICATES REMOVED)

=> s GUO J?/AU
L19       21682 GUO J?/AU

=> s l19 and chaperonin(w)10
L20          17 L19 AND CHAPERONIN(W) 10

=> dup rem l20
PROCESSING COMPLETED FOR L20
L21           6 DUP REM L20 (11 DUPLICATES REMOVED)

=> dis ibib abs l3 1-10

L3   ANSWER 1 OF 10     MEDLINE on STN                  DUPLICATE 1
ACCESSION NUMBER:   2007426151     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 17552551
TITLE:              Verification of endometrial tissue biomarkers previously
                    discovered using mass spectrometry-based proteomics by
                    means of immunohistochemistry in a tissue microarray
                    format.
AUTHOR:             Dube Valerie; Grigull Jorg; DeSouza Leroi V; Ghanny Shaun;
                    Colgan Terence J; Romaschin Alexander D; Siu K W
                    Michael
CORPORATE SOURCE:   Pathology and Laboratory Medicine, Mount Sinai Hospital,
                    600 University Avenue, Toronto, Ontario, Canada.
SOURCE:             Journal of proteome research, (2007 Jul) Vol. 6, No. 7, pp.
                    2648-55.  Electronic Publication: 2007-06-07.
                    Journal code: 101128775. ISSN: 1535-3893. L-ISSN:
                    1535-3893.
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PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 25 Jul 2007
Last Updated on STN: 31 Aug 2007
Entered Medline: 30 Aug 2007

AB Verification of candidate protein biomarkers is a necessary step in moving from the initial discovery to application. Here, we report results of a verification exercise involving six candidate endometrial cancer biomarkers previously discovered using mass-tagging and multidimensional liquid chromatography/tandem mass spectrometry (DeSouza L., et al. J. Proteome Res. 2005, 4, 377-386) on a cohort of 148 patient samples by means of immunohistochemistry on a tissue microarray format. A panel of the three best-performing biomarkers, chaperonin 10, pyruvate kinase M2, and alpha-1-antitrypsin, achieved a sensitivity of 0.85, specificity of 0.93, predictive value of 0.90, and positive predictive value of 0.88 in discriminating malignant from benign endometrium. The ruggedness of this panel of biomarkers was verified in a 2/3-training-set-1/3-test-set cross-validation analysis by randomly splitting the cohort in 10 ways. The roles of chaperonin 10 and pyruvate kinase M2 in tumorigenesis confirm them as credible cancer biomarkers.

L3 ANSWER 2 OF 10 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 200742608 7 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17523614
TITLE: Identification of candidate biomarker proteins released by human endometrial and cervical cancer cells using two-dimensional liquid chromatography/tandem mass spectrometry.
AUTHOR: Li Hongyan; DeSouza Leroi V; Ghanny Shaun; Li Wei; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Biology, Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2007 Jul) Vol. 6, No. 7, pp. 2615-22. Electronic Publication: 2007-05-25.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 25 Jul 2007
Last Updated on STN: 31 Aug 2007
Entered Medline: 30 Aug 2007

AB Candidate biomarker proteins, including chaperonin 10 and pyruvate kinase, previously discovered and identified using mass-tagging reagents with multidimensional liquid chromatography and tandem mass spectrometry (DeSouza, L.; et al. J. Proteome Res. 2005, 4, 377-386) have been identified in serum-free media of cultured endometrial cancer (KLE and HEC-1-A) and cervical cancer (HeLa) cells. These and other cancer-associated proteins were released by the cultured cells within 24 h of growth. A total of 203 proteins from the KLE cells, 86 from HEC-1-A, and 161 from HeLa are reported.

L3 ANSWER 3 OF 10 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2007397504 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17374602
TITLE: Endometrial carcinoma biomarker discovery and verification using differentially tagged clinical samples with multidimensional liquid chromatography and tandem mass spectrometry.
AUTHOR: DeSouza Leroi V; Grigull Jorg; Ghanny Shaun; Dube Valerie; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry, York University, 4700 Keele Street, Toronto, Ontario M2J 1P3, Canada.
SOURCE: Molecular & cellular proteomics : MCP, (2007 Jul) Vol. 6, No. 7, pp. 1170-82. Electronic Publication: 2007-03-19. Journal code: 101125647. ISSN: 1535-9476. L-ISSN: 1535-9476.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 10 Jul 2007
Last Updated on STN: 29 Aug 2007
Entered Medline: 28 Aug 2007

AB The utility of differentially expressed proteins discovered and identified in an earlier study (DeSouza, L., Diehl, G., Rodrigues, M. J., Guo, J., Romaschin, A. D., Colgan, T. J., and Siu, K. W. M. (2005) Search for cancer markers from endometrial tissues using differentially labeled tags iTRAQ and cleavable ICAT with multidimensional liquid chromatography and tandem mass spectrometry. J. Proteome Res. 4, 377-386) to discriminate malignant and benign endometrial tissue samples was verified in a 40-sample iTRAQ (isobaric tags for relative and absolute quantitation) labeling study involving normal proliferative and secretory samples and Types I and II endometrial cancer samples. None of these proteins had the sensitivity and specificity to be used individually to discriminate between normal and cancer samples. However, a panel of pyruvate kinase, chaperonin 10, and alpha1-antitrypsin achieved the best results with a sensitivity, specificity, predictive value, and positive predictive value of 0.95 each in a logistic regression analysis. In addition, three new potential markers were discovered, whereas two other proteins showed promising trends but were not detected in sufficient numbers of samples to permit statistical validation. Differential expressions of some of these candidate biomarkers were independently verified using immunohistochemistry.

L3 ANSWER 4 OF 10 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 2007:69893 BIOSIS
DOCUMENT NUMBER: PREV200700076624
TITLE: Verification of new endometrial cancer biomarkers tissue expression using tissue microarray and bioinformatic analysis.
AUTHOR(S): Dube, Valerie [Reprint Author]; Grigull, Joerg; Ghanny, Shaun; Romaschin, Alexander D.; Siu, Kw; Colgan, Terence J.
CORPORATE SOURCE: Mt Sinai Hosp, Toronto, ON M5G 1X5, Canada
SOURCE: Modern Pathology, (SEP 2006) Vol. 19, No. Suppl. 3, pp. 94. Meeting Info.: 26th International Congress of the International-Academy-of-Pathology. Montreal, CANADA. September 16 -21, 2006. Int Acad Pathol; United States & Canadian Acad Pathol.
ISSN: 0893-3952.

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Jan 2007
Last Updated on STN: 24 Jan 2007

L3 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:589208 CAPLUS
DOCUMENT NUMBER: 143:93565
TITLE: Marker proteins and methods for diagnosing endometrial cancer or phase
INVENTOR(S): Colgan, Terence J.; Siu, K. W. Michael; Romaschin, Alexander D.; Yang, Eric C. C.
PATENT ASSIGNEE(S): Mount Sinai Hospital, Can.; York University; University Health Network
SOURCE: PCT Int. Appl., 199 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005061725	A1	20050707	WO 2004-CA2172	20041221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004303448	A1	20050707	AU 2004-303448	20041221
CA 2550900	A1	20050707	CA 2004-2550900	20041221
EP 1711618	A1	20061018	EP 2004-802347	20041221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
US 20080226554	A1	20080918	US 2007-584207	20071128
PRIORITY APPLN. INFO.:			US 2003-532601P P	20031223
			US 2004-630990P P	20041124
			WO 2004-CA2172 W	20041221

AB Methods for detecting endometrial diseases or an endometrium phase in a subject are described comprising measuring endometrial markers or polynucleotides encoding the markers in a sample from the subject. The invention also provides localization or imaging methods for endometrial diseases, and kits for carrying out the methods of the invention. The invention also contemplates therapeutic applications for endometrial diseases employing endometrial markers, polynucleotides encoding the markers, and/or binding agents for the markers. Thus, isotope-coded affinity tag (ICAT) anal. was used to identify differentially expressed proteins in proliferative and secretory endometria as well as in normal and cancerous endometrial tissues.

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L3 ANSWER 6 OF 10 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 2005511671 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16134212
TITLE: Direct analysis of laser capture microdissected endometrial carcinoma and epithelium by matrix-assisted laser desorption/ionization mass spectrometry.
AUTHOR: Guo Jingzhong; Colgan Terence J; DeSouza Leroi V; Rodrigues Mary Joe; Romaschin Alexander D; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada M3J 1P3.
SOURCE: Rapid communications in mass spectrometry : RCM, (2005) Vol. 19, No. 19, pp. 2762-6.
Journal code: 8802365. ISSN: 0951-4198. L-ISSN: 0951-4198.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200511
ENTRY DATE: Entered STN: 27 Sep 2005
Last Updated on STN: 8 Nov 2005
Entered Medline: 7 Nov 2005

AB Direct analysis of laser capture microdissected malignant and normal endometrial epithelium using matrix-assisted laser desorption/ionization (MALDI) time-of-flight mass spectrometry (MS) was able to detect a number of proteins that are overexpressed in malignant epithelial cells. A total of 16 physiologic and malignant endometrial samples were laser capture microdissected, including four proliferative and four secretory endometria, and eight endometrioid adenocarcinomas. Two of these proteins, at 10,834 and 10,843 Da, likely correspond to calgranulin A and chaperonin 10, two proteins that had previously been identified in endometrioid adenocarcinoma in whole tissue homogenate by MS analysis. Direct analysis by MALDI-MS not only confirms that these proteins are overexpressed in endometrial carcinoma, but also localizes them to the epithelial cells, the expected cancer site.

L3 ANSWER 7 OF 10 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2005247858 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15816004
TITLE: A strategy for high-resolution protein identification in surface-enhanced laser desorption/ionization mass spectrometry: calgranulin A and chaperonin 10 as protein markers for endometrial carcinoma.
AUTHOR: Guo Jingzhong; Yang Eric C C; Desouza Leroi; Diehl Georg; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, Toronto, Ontario, Canada.
SOURCE: Proteomics, (2005 May) Vol. 5, No. 7, pp. 1953-66.
Journal code: 101092707. ISSN: 1615-9853. L-ISSN: 1615-9853.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200512
ENTRY DATE: Entered STN: 12 May 2005
Last Updated on STN: 14 Dec 2005
Entered Medline: 6 Dec 2005

AB Surface-enhanced laser desorption/ionization-mass spectrometry (SELDI-MS) has conventionally been practiced on linear time of flight (TOF) which has low mass accuracy and resolution. Here we demonstrate in an examination of both malignant and nonmalignant endometrial tissue homogenates that high mass accuracy and resolution in the MS stage are crucial. Using a commercially available quadrupole/TOF (QqTOF), we were able to resolve two potential cancer markers, subsequently identified off-line as chaperonin 10 and calgranulin A, that differ by 8 Da in mass. Two off-line protein identification protocols were developed: the first was based on size-exclusion chromatography (SEC), sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), protein extraction, trypsin digestion, and matrix-assisted laser desorption/ionization-tandem MS (MALDI-MS/MS); the second on SEC and shotgun nano-liquid chromatography (nanoLC)-MS/MS. Analyses on a cohort of 44 endometrial homogenates showed 22 out of 23 nonmalignant samples had nondetectable to very low abundance of chaperonin 10 and calgranulin A; 17 of the 21 malignant samples had detectable to abundant levels of both proteins. Immunohistochemical staining of a tissue microarray of 32 samples showed that approximately half of malignant endometrial tissues exhibited positive staining for calgranulin A in the malignant epithelium, while 9 out of 10 benign tissues exhibited negative epithelial staining. In addition, macrophages/granulocytes in malignant as well as nonmalignant tissues showed positive staining. No immunostaining occurred in stroma or myometrium. Calgranulin A, in combination with chaperonin 10 and other proteins, may eventually constitute a panel of markers to permit diagnosis and screening of endometrial cancer.

L3 ANSWER 8 OF 10 MEDLINE on STN DUPLICATE 6

ACCESSION NUMBER: 2005217877 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15822913
TITLE: Search for cancer markers from endometrial tissues using differentially labeled tags iTRAQ and cICAT with multidimensional liquid chromatography and tandem mass spectrometry.
AUTHOR: DeSouza Leroi; Diehl Georg; Rodrigues Mary Joe; Guo Jingzhong; Romaschin Alexander D; Colgan Terence J ; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, York University, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2005 Mar-Apr) Vol. 4, No. 2, pp. 377-86.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200507
ENTRY DATE: Entered STN: 28 Apr 2005
Last Updated on STN: 29 Jul 2005
Entered Medline: 28 Jul 2005

AB A total of nine potential markers for endometrial cancer (EmCa) have been discovered and identified from endometrial tissue homogenates using a combination of differentially labeled tags, iTRAQ and cICAT, with multidimensional liquid chromatography and tandem mass spectrometry. The tissues were snap frozen in liquid nitrogen within 15-20 min after devitalization. Samples for proteomic analysis were treated with protease inhibitors before processing. Marker proteins that were overexpressed in EmCa are chaperonin 10, pyruvate kinase M1 or M2 isozyme, calgizzarin, heterogeneous nuclear ribonucleoprotein D0, macrophage migratory inhibitory factor, and polymeric immunoglobulin

receptor precursor; those that were underexpressed are alpha-1-antitrypsin precursor, creatine kinase B, and transgelin. The chaperonin 10 result confirms our earlier observation of overexpression in EmCa tissues using surface-enhanced laser desorption/ionization mass spectrometry, verified by Western analysis and immunohistochemistry [Yang, E. C. C. et al. J. Proteome Res. 2004, 3, 636-643]. Pyruvate kinase was observed to be overexpressed using both iTRAQ and cICAT labeling. All nine markers have been found to be associated with various forms of cancer. A panel of these plus other markers may confer sufficient selectivity for diagnosing and screening of EmCa. The use of cICAT led to identification of a higher proportion of lower-abundance signaling proteins; conversely, iTRAQ resulted in a higher percentage of the more abundant ribosomal proteins and transcription factors.

L3 ANSWER 9 OF 10 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 2008:561659 BIOSIS
DOCUMENT NUMBER: PREV200800561658
TITLE: Endometrial cancer marker discovery using differentially labelled clinical samples.
AUTHOR(S): Desouza, L. [Reprint Author]; Guo, J.; Alhaq, M.; Romaschin, A.; Colgan, T.; Siu, K.
CORPORATE SOURCE: York Univ, Toronto, ON M3J 2R7, Canada
SOURCE: Molecular & Cellular Proteomics, (AUG 2005) Vol. 4, No. 8, Suppl. 1, pp. S318.
Meeting Info.: 4th Annual World Congress of the Human-Proteome-Organisation (HUPO). Munich, GERMANY. August 28 -September 01, 2005. Human Proteome Org.
ISSN: 1535-9476.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Oct 2008
Last Updated on STN: 15 Oct 2008

L3 ANSWER 10 OF 10 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2004350547 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15253447
TITLE: Protein expression profiling of endometrial malignancies reveals a new tumor marker: chaperonin 10
.
AUTHOR: Yang Eric C C; Guo Jingzhong; Diehl Georg; DeSouza Leroi; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry, Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada M3J 1P3.
SOURCE: Journal of proteome research, (2004 May-Jun) Vol. 3, No. 3, pp. 636-43.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200412
ENTRY DATE: Entered STN: 16 Jul 2004
Last Updated on STN: 21 Dec 2004
Entered Medline: 20 Dec 2004
AB Endometrial carcinoma is a common malignancy in women, being exceeded in incidence only by that of breast, lung, and colorectal cancers. At present, no serum tumor markers are available for the monitoring of

endometrial carcinoma patients, and patients with recurrent disease are detected only following the development of symptoms or abnormalities in imaging assessments. Similarly, no screening tools are available for endometrial carcinoma. Protein profiling by matrix-assisted laser desorption/ionization-time-of-flight mass spectrometry (MALDI-TOF MS) has proven to be a sensitive and fast method of analysis for small proteins or peptides to yield specific biomarkers. In this study, a variety of normal and malignant endometrial tissue samples were fractionated and analyzed by SELDI-TOF MS (SELDI is a version of MALDI utilizing protein "chips"). A number of proteins displayed differential expression in malignant endometrial tissues. One of the prominent proteins fractionated by weak cation exchange chromatography and displaying enhanced expression in these malignant tissues was identified as chaperonin 10.
The increased expression of chaperonin 10 in malignant endometrial tissues was further confirmed by parallel Western blot and immunohistochemistry analyses.

=> dis ibib abs l6 1-11

L6 ANSWER 1 OF 11 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2007426151 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17552551
TITLE: Verification of endometrial tissue biomarkers previously discovered using mass spectrometry-based proteomics by means of immunohistochemistry in a tissue microarray format.
AUTHOR: Dube Valerie; Grigull Jorg; DeSouza Leroi V; Ghanny Shaun; Colgan Terence J; Romaschin Alexander D; Siu K W Michael
CORPORATE SOURCE: Pathology and Laboratory Medicine, Mount Sinai Hospital, 600 University Avenue, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2007 Jul) Vol. 6, No. 7, pp. 2648-55. Electronic Publication: 2007-06-07.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 25 Jul 2007
Last Updated on STN: 31 Aug 2007
Entered Medline: 30 Aug 2007
AB Verification of candidate protein biomarkers is a necessary step in moving from the initial discovery to application. Here, we report results of a verification exercise involving six candidate endometrial cancer biomarkers previously discovered using mass-tagging and multidimensional liquid chromatography/tandem mass spectrometry (DeSouza L., et al. J. Proteome Res. 2005, 4, 377-386) on a cohort of 148 patient samples by means of immunohistochemistry on a tissue microarray format. A panel of the three best-performing biomarkers, chaperonin 10, pyruvate kinase M2, and alpha-1-antitrypsin, achieved a sensitivity of 0.85, specificity of 0.93, predictive value of 0.90, and positive predictive value of 0.88 in discriminating malignant from benign endometrium. The ruggedness of this panel of biomarkers was verified in a 2/3-training-set-1/3-test-set cross-validation analysis by randomly splitting the cohort in 10 ways. The roles of chaperonin 10 and pyruvate kinase M2 in tumorigenesis confirm them as credible cancer biomarkers.

L6 ANSWER 2 OF 11 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2007426087 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17523614
TITLE: Identification of candidate biomarker proteins released by human endometrial and cervical cancer cells using two-dimensional liquid chromatography/tandem mass spectrometry.
AUTHOR: Li Hongyan; DeSouza Leroi V; Ghanny Shaun; Li Wei; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Biology, Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2007 Jul) Vol. 6, No. 7, pp. 2615-22. Electronic Publication: 2007-05-25. Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 25 Jul 2007
Last Updated on STN: 31 Aug 2007
Entered Medline: 30 Aug 2007
AB Candidate biomarker proteins, including chaperonin 10 and pyruvate kinase, previously discovered and identified using mass-tagging reagents with multidimensional liquid chromatography and tandem mass spectrometry (DeSouza, L.; et al. J. Proteome Res. 2005, 4, 377-386) have been identified in serum-free media of cultured endometrial cancer (KLE and HEC-1-A) and cervical cancer (HeLa) cells. These and other cancer-associated proteins were released by the cultured cells within 24 h of growth. A total of 203 proteins from the KLE cells, 86 from HEC-1-A, and 161 from HeLa are reported.

L6 ANSWER 3 OF 11 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2007397504 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17374602
TITLE: Endometrial carcinoma biomarker discovery and verification using differentially tagged clinical samples with multidimensional liquid chromatography and tandem mass spectrometry.
AUTHOR: DeSouza Leroi V; Grigull Jorg; Ghanny Shaun; Dube Valerie; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry, York University, 4700 Keele Street, Toronto, Ontario M2J 1P3, Canada.
SOURCE: Molecular & cellular proteomics : MCP, (2007 Jul) Vol. 6, No. 7, pp. 1170-82. Electronic Publication: 2007-03-19. Journal code: 101125647. ISSN: 1535-9476. L-ISSN: 1535-9476.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 10 Jul 2007
Last Updated on STN: 29 Aug 2007
Entered Medline: 28 Aug 2007
AB The utility of differentially expressed proteins discovered and identified

in an earlier study (DeSouza, L., Diehl, G., Rodrigues, M. J., Guo, J., Romaschin, A. D., Colgan, T. J., and Siu, K. W. M. (2005) Search for cancer markers from endometrial tissues using differentially labeled tags iTRAQ and cleavable ICAT with multidimensional liquid chromatography and tandem mass spectrometry. J. Proteome Res. 4, 377-386) to discriminate malignant and benign endometrial tissue samples was verified in a 40-sample iTRAQ (isobaric tags for relative and absolute quantitation) labeling study involving normal proliferative and secretory samples and Types I and II endometrial cancer samples. None of these proteins had the sensitivity and specificity to be used individually to discriminate between normal and cancer samples. However, a panel of pyruvate kinase, chaperonin 10, and alpha1-antitrypsin achieved the best results with a sensitivity, specificity, predictive value, and positive predictive value of 0.95 each in a logistic regression analysis. In addition, three new potential markers were discovered, whereas two other proteins showed promising trends but were not detected in sufficient numbers of samples to permit statistical validation. Differential expressions of some of these candidate biomarkers were independently verified using immunohistochemistry.

L6 ANSWER 4 OF 11 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 2006425908 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16808467
TITLE: Infrared multiphoton dissociation in quadrupole time-of-flight mass spectrometry: top-down characterization of proteins.
AUTHOR: Raspopov Serguei A; El-Faramawy Ayman; Thomson Bruce A; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada.
SOURCE: Analytical chemistry, (2006 Jul 1) Vol. 78, No. 13, pp. 4572-7.
Journal code: 0370536. ISSN: 0003-2700. L-ISSN: 0003-2700.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200704
ENTRY DATE: Entered STN: 20 Jul 2006
Last Updated on STN: 27 Apr 2007
Entered Medline: 26 Apr 2007

AB The first implementation of infrared multiphoton dissociation (IRMPD) for a hybrid quadrupole time-of-flight (QqTOF) mass spectrometer is reported. Ions were trapped in the radio frequency-only quadrupole (q2), which normally serves as a collision cell, and irradiated by a continuous CO2 IR laser. The laser beam was introduced coaxially with the quadrupoles in order to maximize overlap with the ion path. The resolution of the TOF mass analyzer allowed direct charge state determination for fragments smaller than 7 kDa. For larger fragments, the charge state could be assigned using the multiple losses of water, characteristic for IRMPD of proteins. The analytical performance is demonstrated by top-down sequencing of several representative proteins (equine myoglobin, bovine casein, and human insulin and chaperonin 10). Various post-translational modifications such as phosphorylation, acetylation, formation of disulfide bridges, and removal of N-terminal methionine followed by acetylation are detected and characterized. The utility of IRMPD for the analysis of biological samples is demonstrated in a study of a recently identified potential marker for endometrial cancer, chaperonin 10.

L6 ANSWER 5 OF 11 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 2007:69893 BIOSIS
DOCUMENT NUMBER: PREV200700076624
TITLE: Verification of new endometrial cancer biomarkers tissue expression using tissue microarray and bioinformatic analysis.
AUTHOR(S): Dube, Valerie [Reprint Author]; Grigull, Joerg; Ghanny, Shaun; Romaschin, Alexander D.; Siu, Kw; Colgan, Terence J.
CORPORATE SOURCE: Mt Sinai Hosp, Toronto, ON M5G 1X5, Canada
SOURCE: Modern Pathology, (SEP 2006) Vol. 19, No. Suppl. 3, pp. 94. Meeting Info.: 26th International Congress of the International-Academy-of-Pathology. Montreal, CANADA. September 16 -21, 2006. Int Acad Pathol; United States & Canadian Acad Pathol.
ISSN: 0893-3952.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Jan 2007
Last Updated on STN: 24 Jan 2007

L6 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:589208 CAPLUS
DOCUMENT NUMBER: 143:93565
TITLE: Marker proteins and methods for diagnosing endometrial cancer or phase
INVENTOR(S): Colgan, Terence J.; Siu, K. W. Michael; Romaschin, Alexander D.; Yang, Eric C. C.
PATENT ASSIGNEE(S): Mount Sinai Hospital, Can.; York University; University Health Network
SOURCE: PCT Int. Appl., 199 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005061725	A1	20050707	WO 2004-CA2172		20041221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2004303448	A1	20050707	AU 2004-303448		20041221
CA 2550900	A1	20050707	CA 2004-2550900		20041221
EP 1711618	A1	20061018	EP 2004-802347		20041221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS					
US 20080226554	A1	20080918	US 2007-584207		20071128
PRIORITY APPLN. INFO.:			US 2003-532601P	P	20031223
			US 2004-630990P	P	20041124
			WO 2004-CA2172	W	20041221

AB Methods for detecting endometrial diseases or an endometrium phase in a

subject are described comprising measuring endometrial markers or polynucleotides encoding the markers in a sample from the subject. The invention also provides localization or imaging methods for endometrial diseases, and kits for carrying out the methods of the invention. The invention also contemplates therapeutic applications for endometrial diseases employing endometrial markers, polynucleotides encoding the markers, and/or binding agents for the markers. Thus, isotope-coded affinity tag (ICAT) anal. was used to identify differentially expressed proteins in proliferative and secretory endometria as well as in normal and cancerous endometrial tissues.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 11 MEDLINE on STN DUPLICATE 5

ACCESSION NUMBER: 2005511671 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16134212
TITLE: Direct analysis of laser capture microdissected endometrial carcinoma and epithelium by matrix-assisted laser desorption/ionization mass spectrometry.
AUTHOR: Guo Jingzhong; Colgan Terence J; DeSouza Leroi V; Rodrigues Mary Joe; Romaschin Alexander D; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada M3J 1P3.
SOURCE: Rapid communications in mass spectrometry : RCM, (2005) Vol. 19, No. 19, pp. 2762-6.
Journal code: 8802365. ISSN: 0951-4198. L-ISSN: 0951-4198.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200511
ENTRY DATE: Entered STN: 27 Sep 2005
Last Updated on STN: 8 Nov 2005
Entered Medline: 7 Nov 2005

AB Direct analysis of laser capture microdissected malignant and normal endometrial epithelium using matrix-assisted laser desorption/ionization (MALDI) time-of-flight mass spectrometry (MS) was able to detect a number of proteins that are overexpressed in malignant epithelial cells. A total of 16 physiologic and malignant endometrial samples were laser capture microdissected, including four proliferative and four secretory endometria, and eight endometrioid adenocarcinomas. Two of these proteins, at 10,834 and 10,843 Da, likely correspond to calgranulin A and chaperonin 10, two proteins that had previously been identified in endometrioid adenocarcinoma in whole tissue homogenate by MS analysis. Direct analysis by MALDI-MS not only confirms that these proteins are overexpressed in endometrial carcinoma, but also localizes them to the epithelial cells, the expected cancer site.

L6 ANSWER 8 OF 11 MEDLINE on STN DUPLICATE 6

ACCESSION NUMBER: 2005247858 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15816004
TITLE: A strategy for high-resolution protein identification in surface-enhanced laser desorption/ionization mass spectrometry: calgranulin A and chaperonin 10 as protein markers for endometrial carcinoma.
AUTHOR: Guo Jingzhong; Yang Eric C C; Desouza Leroi; Diehl Georg;

Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, Toronto, Ontario, Canada.
SOURCE: Proteomics, (2005 May) Vol. 5, No. 7, pp. 1953-66. Journal code: 101092707. ISSN: 1615-9853. L-ISSN: 1615-9853.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200512
ENTRY DATE: Entered STN: 12 May 2005
Last Updated on STN: 14 Dec 2005
Entered Medline: 6 Dec 2005

AB Surface-enhanced laser desorption/ionization-mass spectrometry (SELDI-MS) has conventionally been practiced on linear time of flight (TOF) which has low mass accuracy and resolution. Here we demonstrate in an examination of both malignant and nonmalignant endometrial tissue homogenates that high mass accuracy and resolution in the MS stage are crucial. Using a commercially available quadrupole/TOF (QqTOF), we were able to resolve two potential cancer markers, subsequently identified off-line as chaperonin 10 and calgranulin A, that differ by 8 Da in mass. Two off-line protein identification protocols were developed: the first was based on size-exclusion chromatography (SEC), sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), protein extraction, trypsin digestion, and matrix-assisted laser desorption/ionization-tandem MS (MALDI-MS/MS); the second on SEC and shotgun nano-liquid chromatography (nanoLC)-MS/MS. Analyses on a cohort of 44 endometrial homogenates showed 22 out of 23 nonmalignant samples had nondetectable to very low abundance of chaperonin 10 and calgranulin A; 17 of the 21 malignant samples had detectable to abundant levels of both proteins. Immunohistochemical staining of a tissue microarray of 32 samples showed that approximately half of malignant endometrial tissues exhibited positive staining for calgranulin A in the malignant epithelium, while 9 out of 10 benign tissues exhibited negative epithelial staining. In addition, macrophages/granulocytes in malignant as well as nonmalignant tissues showed positive staining. No immunostaining occurred in stroma or myometrium. Calgranulin A, in combination with chaperonin 10 and other proteins, may eventually constitute a panel of markers to permit diagnosis and screening of endometrial cancer.

L6 ANSWER 9 OF 11 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2005217877 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15822913
TITLE: Search for cancer markers from endometrial tissues using differentially labeled tags iTRAQ and cICAT with multidimensional liquid chromatography and tandem mass spectrometry.
AUTHOR: DeSouza Leroi; Diehl Georg; Rodrigues Mary Joe; Guo Jingzhong; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, York University, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2005 Mar-Apr) Vol. 4, No. 2, pp. 377-86. Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200507
ENTRY DATE: Entered STN: 28 Apr 2005
Last Updated on STN: 29 Jul 2005
Entered Medline: 28 Jul 2005

AB A total of nine potential markers for endometrial cancer (EmCa) have been discovered and identified from endometrial tissue homogenates using a combination of differentially labeled tags, iTRAQ and cICAT, with multidimensional liquid chromatography and tandem mass spectrometry. The tissues were snap frozen in liquid nitrogen within 15-20 min after devitalization. Samples for proteomic analysis were treated with protease inhibitors before processing. Marker proteins that were overexpressed in EmCa are chaperonin 10, pyruvate kinase M1 or M2 isozyme, calgizzarin, heterogeneous nuclear ribonucleoprotein D0, macrophage migratory inhibitory factor, and polymeric immunoglobulin receptor precursor; those that were underexpressed are alpha-1-antitrypsin precursor, creatine kinase B, and transgelin. The chaperonin 10 result confirms our earlier observation of overexpression in EmCa tissues using surface-enhanced laser desorption/ionization mass spectrometry, verified by Western analysis and immunohistochemistry [Yang, E. C. C. et al. J. Proteome Res. 2004, 3, 636-643]. Pyruvate kinase was observed to be overexpressed using both iTRAQ and cICAT labeling. All nine markers have been found to be associated with various forms of cancer. A panel of these plus other markers may confer sufficient selectivity for diagnosing and screening of EmCa. The use of cICAT led to identification of a higher proportion of lower-abundance signaling proteins; conversely, iTRAQ resulted in a higher percentage of the more abundant ribosomal proteins and transcription factors.

L6 ANSWER 10 OF 11 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 2008:561659 BIOSIS
DOCUMENT NUMBER: PREV200800561658
TITLE: Endometrial cancer marker discovery using differentially labelled clinical samples.
AUTHOR(S): Desouza, L. [Reprint Author]; Guo, J.; Alhaq, M.; Romaschin, A.; Colgan, T.; Siu, K.
CORPORATE SOURCE: York Univ, Toronto, ON M3J 2R7, Canada
SOURCE: Molecular & Cellular Proteomics, (AUG 2005) Vol. 4, No. 8, Suppl. 1, pp. S318.
Meeting Info.: 4th Annual World Congress of the Human-Proteome-Organisation (HUPO). Munich, GERMANY. August 28 -September 01, 2005. Human Proteome Org.
ISSN: 1535-9476.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Oct 2008
Last Updated on STN: 15 Oct 2008

L6 ANSWER 11 OF 11 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 2004350547 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15253447
TITLE: Protein expression profiling of endometrial malignancies reveals a new tumor marker: chaperonin 10
.
AUTHOR: Yang Eric C C; Guo Jingzhong; Diehl Georg; DeSouza Leroi; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry, Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto,

Ontario, Canada M3J 1P3.
SOURCE: Journal of proteome research, (2004 May-Jun) Vol. 3, No. 3, pp. 636-43.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200412
ENTRY DATE: Entered STN: 16 Jul 2004
Last Updated on STN: 21 Dec 2004
Entered Medline: 20 Dec 2004

AB Endometrial carcinoma is a common malignancy in women, being exceeded in incidence only by that of breast, lung, and colorectal cancers. At present, no serum tumor markers are available for the monitoring of endometrial carcinoma patients, and patients with recurrent disease are detected only following the development of symptoms or abnormalities in imaging assessments. Similarly, no screening tools are available for endometrial carcinoma. Protein profiling by matrix-assisted laser desorption/ionization-time-of-flight mass spectrometry (MALDI-TOF MS) has proven to be a sensitive and fast method of analysis for small proteins or peptides to yield specific biomarkers. In this study, a variety of normal and malignant endometrial tissue samples were fractionated and analyzed by SELDI-TOF MS (SELDI is a version of MALDI utilizing protein "chips"). A number of proteins displayed differential expression in malignant endometrial tissues. One of the prominent proteins fractionated by weak cation exchange chromatography and displaying enhanced expression in these malignant tissues was identified as chaperonin 10.
The increased expression of chaperonin 10 in malignant endometrial tissues was further confirmed by parallel Western blot and immunohistochemistry analyses.

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L9 ANSWER 1 OF 10 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2007426151 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17552551
TITLE: Verification of endometrial tissue biomarkers previously discovered using mass spectrometry-based proteomics by means of immunohistochemistry in a tissue microarray format.
AUTHOR: Dube Valerie; Grigull Jorg; DeSouza Leroi V; Ghanny Shaun; Colgan Terence J; Romaschin Alexander D; Siu K W Michael
CORPORATE SOURCE: Pathology and Laboratory Medicine, Mount Sinai Hospital, 600 University Avenue, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2007 Jul) Vol. 6, No. 7, pp. 2648-55. Electronic Publication: 2007-06-07.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 25 Jul 2007
Last Updated on STN: 31 Aug 2007
Entered Medline: 30 Aug 2007

AB Verification of candidate protein biomarkers is a necessary step in moving from the initial discovery to application. Here, we report results of a verification exercise involving six candidate endometrial cancer biomarkers previously discovered using mass-tagging and multidimensional liquid chromatography/tandem mass spectrometry (DeSouza L., et al. J. Proteome Res. 2005, 4, 377-386) on a cohort of 148 patient samples by means of immunohistochemistry on a tissue microarray format. A panel of the three best-performing biomarkers, chaperonin 10, pyruvate kinase M2, and alpha-1-antitrypsin, achieved a sensitivity of 0.85, specificity of 0.93, predictive value of 0.90, and positive predictive value of 0.88 in discriminating malignant from benign endometrium. The ruggedness of this panel of biomarkers was verified in a 2/3-training-set-1/3-test-set cross-validation analysis by randomly splitting the cohort in 10 ways. The roles of chaperonin 10 and pyruvate kinase M2 in tumorigenesis confirm them as credible cancer biomarkers.

L9 ANSWER 2 OF 10 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2007426087 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17523614
TITLE: Identification of candidate biomarker proteins released by human endometrial and cervical cancer cells using two-dimensional liquid chromatography/tandem mass spectrometry.
AUTHOR: Li Hongyan; DeSouza Leroi V; Ghanny Shaun; Li Wei; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Biology, Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2007 Jul) Vol. 6, No. 7, pp. 2615-22. Electronic Publication: 2007-05-25. Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 25 Jul 2007
Last Updated on STN: 31 Aug 2007
Entered Medline: 30 Aug 2007
AB Candidate biomarker proteins, including chaperonin 10 and pyruvate kinase, previously discovered and identified using mass-tagging reagents with multidimensional liquid chromatography and tandem mass spectrometry (DeSouza, L.; et al. J. Proteome Res. 2005, 4, 377-386) have been identified in serum-free media of cultured endometrial cancer (KLE and HEC-1-A) and cervical cancer (HeLa) cells. These and other cancer-associated proteins were released by the cultured cells within 24 h of growth. A total of 203 proteins from the KLE cells, 86 from HEC-1-A, and 161 from HeLa are reported.

L9 ANSWER 3 OF 10 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2007397504 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17374602
TITLE: Endometrial carcinoma biomarker discovery and verification using differentially tagged clinical samples with multidimensional liquid chromatography and tandem mass spectrometry.
AUTHOR: DeSouza Leroi V; Grigull Jorg; Ghanny Shaun; Dube Valerie; Romaschin Alexander D; Colgan Terence J; Siu K W

Michael
CORPORATE SOURCE: Department of Chemistry, York University, 4700 Keele Street, Toronto, Ontario M2J 1P3, Canada.
SOURCE: Molecular & cellular proteomics : MCP, (2007 Jul) Vol. 6, No. 7, pp. 1170-82. Electronic Publication: 2007-03-19. Journal code: 101125647. ISSN: 1535-9476. L-ISSN: 1535-9476.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 10 Jul 2007
Last Updated on STN: 29 Aug 2007
Entered Medline: 28 Aug 2007

AB The utility of differentially expressed proteins discovered and identified in an earlier study (DeSouza, L., Diehl, G., Rodrigues, M. J., Guo, J., Romaschin, A. D., Colgan, T. J., and Siu, K. W. M. (2005) Search for cancer markers from endometrial tissues using differentially labeled tags iTRAQ and cleavable ICAT with multidimensional liquid chromatography and tandem mass spectrometry. J. Proteome Res. 4, 377-386) to discriminate malignant and benign endometrial tissue samples was verified in a 40-sample iTRAQ (isobaric tags for relative and absolute quantitation) labeling study involving normal proliferative and secretory samples and Types I and II endometrial cancer samples. None of these proteins had the sensitivity and specificity to be used individually to discriminate between normal and cancer samples. However, a panel of pyruvate kinase, chaperonin 10, and alpha1-antitrypsin achieved the best results with a sensitivity, specificity, predictive value, and positive predictive value of 0.95 each in a logistic regression analysis. In addition, three new potential markers were discovered, whereas two other proteins showed promising trends but were not detected in sufficient numbers of samples to permit statistical validation. Differential expressions of some of these candidate biomarkers were independently verified using immunohistochemistry.

L9 ANSWER 4 OF 10 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 2007:69893 BIOSIS
DOCUMENT NUMBER: PREV200700076624
TITLE: Verification of new endometrial cancer biomarkers tissue expression using tissue microarray and bioinformatic analysis.
AUTHOR(S): Dube, Valerie [Reprint Author]; Grigull, Joerg; Ghanny, Shaun; Romaschin, Alexander D.; Siu, Kw; Colgan, Terence J.
CORPORATE SOURCE: Mt Sinai Hosp, Toronto, ON M5G 1X5, Canada
SOURCE: Modern Pathology, (SEP 2006) Vol. 19, No. Suppl. 3, pp. 94. Meeting Info.: 26th International Congress of the International-Academy-of-Pathology. Montreal, CANADA. September 16 -21, 2006. Int Acad Pathol; United States & Canadian Acad Pathol.
ISSN: 0893-3952.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Jan 2007
Last Updated on STN: 24 Jan 2007

L9 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:589208 CAPLUS
DOCUMENT NUMBER: 143:93565

TITLE: Marker proteins and methods for diagnosing endometrial cancer or phase
INVENTOR(S): Colgan, Terence J.; Siu, K. W. Michael; Romaschin, Alexander D.; Yang, Eric C. C.
PATENT ASSIGNEE(S): Mount Sinai Hospital, Can.; York University; University Health Network
SOURCE: PCT Int. Appl., 199 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005061725	A1	20050707	WO 2004-CA2172	20041221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004303448	A1	20050707	AU 2004-303448	20041221
CA 2550900	A1	20050707	CA 2004-2550900	20041221
EP 1711618	A1	20061018	EP 2004-802347	20041221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
US 20080226554	A1	20080918	US 2007-584207	20071128
PRIORITY APPLN. INFO.:			US 2003-532601P P	20031223
			US 2004-630990P P	20041124
			WO 2004-CA2172 W	20041221

AB Methods for detecting endometrial diseases or an endometrium phase in a subject are described comprising measuring endometrial markers or polynucleotides encoding the markers in a sample from the subject. The invention also provides localization or imaging methods for endometrial diseases, and kits for carrying out the methods of the invention. The invention also contemplates therapeutic applications for endometrial diseases employing endometrial markers, polynucleotides encoding the markers, and/or binding agents for the markers. Thus, isotope-coded affinity tag (ICAT) anal. was used to identify differentially expressed proteins in proliferative and secretory endometria as well as in normal and cancerous endometrial tissues.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 10 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 2005511671 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16134212
TITLE: Direct analysis of laser capture microdissected endometrial carcinoma and epithelium by matrix-assisted laser desorption/ionization mass spectrometry.
AUTHOR: Guo Jingzhong; Colgan Terence J; DeSouza Leroi V; Rodrigues Mary Joe; Romaschin Alexander D; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto,

Ontario, Canada M3J 1P3.
SOURCE: Rapid communications in mass spectrometry : RCM, (2005) Vol. 19, No. 19, pp. 2762-6.
Journal code: 8802365. ISSN: 0951-4198. L-ISSN: 0951-4198.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200511
ENTRY DATE: Entered STN: 27 Sep 2005
Last Updated on STN: 8 Nov 2005
Entered Medline: 7 Nov 2005

AB Direct analysis of laser capture microdissected malignant and normal endometrial epithelium using matrix-assisted laser desorption/ionization (MALDI) time-of-flight mass spectrometry (MS) was able to detect a number of proteins that are overexpressed in malignant epithelial cells. A total of 16 physiologic and malignant endometrial samples were laser capture microdissected, including four proliferative and four secretory endometria, and eight endometrioid adenocarcinomas. Two of these proteins, at 10,834 and 10,843 Da, likely correspond to calgranulin A and chaperonin 10, two proteins that had previously been identified in endometrioid adenocarcinoma in whole tissue homogenate by MS analysis. Direct analysis by MALDI-MS not only confirms that these proteins are overexpressed in endometrial carcinoma, but also localizes them to the epithelial cells, the expected cancer site.

L9 ANSWER 7 OF 10 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2005247858 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15816004
TITLE: A strategy for high-resolution protein identification in surface-enhanced laser desorption/ionization mass spectrometry: calgranulin A and chaperonin 10 as protein markers for endometrial carcinoma.
AUTHOR: Guo Jingzhong; Yang Eric C C; Desouza Leroi; Diehl Georg; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, Toronto, Ontario, Canada.
SOURCE: Proteomics, (2005 May) Vol. 5, No. 7, pp. 1953-66.
Journal code: 101092707. ISSN: 1615-9853. L-ISSN: 1615-9853.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200512
ENTRY DATE: Entered STN: 12 May 2005
Last Updated on STN: 14 Dec 2005
Entered Medline: 6 Dec 2005

AB Surface-enhanced laser desorption/ionization-mass spectrometry (SELDI-MS) has conventionally been practiced on linear time of flight (TOF) which has low mass accuracy and resolution. Here we demonstrate in an examination of both malignant and nonmalignant endometrial tissue homogenates that high mass accuracy and resolution in the MS stage are crucial. Using a commercially available quadrupole/TOF (QqTOF), we were able to resolve two potential cancer markers, subsequently identified off-line as chaperonin 10 and calgranulin A, that differ by 8 Da in mass. Two off-line protein identification protocols were developed: the

first was based on size-exclusion chromatography (SEC), sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), protein extraction, trypsin digestion, and matrix-assisted laser desorption/ionization-tandem MS (MALDI-MS/MS); the second on SEC and shotgun nano-liquid chromatography (nanoLC)-MS/MS. Analyses on a cohort of 44 endometrial homogenates showed 22 out of 23 nonmalignant samples had nondetectable to very low abundance of chaperonin 10 and calgranulin A; 17 of the 21 malignant samples had detectable to abundant levels of both proteins. Immunohistochemical staining of a tissue microarray of 32 samples showed that approximately half of malignant endometrial tissues exhibited positive staining for calgranulin A in the malignant epithelium, while 9 out of 10 benign tissues exhibited negative epithelial staining. In addition, macrophages/granulocytes in malignant as well as nonmalignant tissues showed positive staining. No immunostaining occurred in stroma or myometrium. Calgranulin A, in combination with chaperonin 10 and other proteins, may eventually constitute a panel of markers to permit diagnosis and screening of endometrial cancer.

L9 ANSWER 8 OF 10 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 2005217877 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15822913
TITLE: Search for cancer markers from endometrial tissues using differentially labeled tags iTRAQ and cICAT with multidimensional liquid chromatography and tandem mass spectrometry.
AUTHOR: DeSouza Leroi; Diehl Georg; Rodrigues Mary Joe; Guo Jingzhong; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, York University, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2005 Mar-Apr) Vol. 4, No. 2, pp. 377-86.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200507
ENTRY DATE: Entered STN: 28 Apr 2005
Last Updated on STN: 29 Jul 2005
Entered Medline: 28 Jul 2005

AB A total of nine potential markers for endometrial cancer (EmCa) have been discovered and identified from endometrial tissue homogenates using a combination of differentially labeled tags, iTRAQ and cICAT, with multidimensional liquid chromatography and tandem mass spectrometry. The tissues were snap frozen in liquid nitrogen within 15-20 min after devitalization. Samples for proteomic analysis were treated with protease inhibitors before processing. Marker proteins that were overexpressed in EmCa are chaperonin 10, pyruvate kinase M1 or M2 isozyme, calgizzarin, heterogeneous nuclear ribonucleoprotein D0, macrophage migratory inhibitory factor, and polymeric immunoglobulin receptor precursor; those that were underexpressed are alpha-1-antitrypsin precursor, creatine kinase B, and transgelin. The chaperonin 10 result confirms our earlier observation of overexpression in EmCa tissues using surface-enhanced laser desorption/ionization mass spectrometry, verified by Western analysis and immunohistochemistry [Yang, E. C. C. et al. J. Proteome Res. 2004, 3, 636-643]. Pyruvate kinase was observed to be overexpressed using both iTRAQ and cICAT labeling. All nine markers have been found to be associated with various forms of cancer. A panel of these plus other markers may confer sufficient

selectivity for diagnosing and screening of EmCa. The use of cICAT led to identification of a higher proportion of lower-abundance signaling proteins; conversely, iTRAQ resulted in a higher percentage of the more abundant ribosomal proteins and transcription factors.

L9 ANSWER 9 OF 10 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 2008:561659 BIOSIS
DOCUMENT NUMBER: PREV200800561658
TITLE: Endometrial cancer marker discovery using differentially labelled clinical samples.
AUTHOR(S): Desouza, L. [Reprint Author]; Guo, J.; Alhaq, M.; Romaschin, A.; Colgan, T.; Siu, K.
CORPORATE SOURCE: York Univ, Toronto, ON M3J 2R7, Canada
SOURCE: Molecular & Cellular Proteomics, (AUG 2005) Vol. 4, No. 8, Suppl. 1, pp. S318.
Meeting Info.: 4th Annual World Congress of the Human-Proteome-Organisation (HUPO). Munich, GERMANY. August 28 -September 01, 2005. Human Proteome Org.
ISSN: 1535-9476.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Oct 2008
Last Updated on STN: 15 Oct 2008

L9 ANSWER 10 OF 10 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2004350547 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15253447
TITLE: Protein expression profiling of endometrial malignancies reveals a new tumor marker: chaperonin 10
.
AUTHOR: Yang Eric C C; Guo Jingzhong; Diehl Georg; DeSouza Leroi; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry, Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada M3J 1P3.
SOURCE: Journal of proteome research, (2004 May-Jun) Vol. 3, No. 3, pp. 636-43.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200412
ENTRY DATE: Entered STN: 16 Jul 2004
Last Updated on STN: 21 Dec 2004
Entered Medline: 20 Dec 2004

AB Endometrial carcinoma is a common malignancy in women, being exceeded in incidence only by that of breast, lung, and colorectal cancers. At present, no serum tumor markers are available for the monitoring of endometrial carcinoma patients, and patients with recurrent disease are detected only following the development of symptoms or abnormalities in imaging assessments. Similarly, no screening tools are available for endometrial carcinoma. Protein profiling by matrix-assisted laser desorption/ionization-time-of-flight mass spectrometry (MALDI-TOF MS) has proven to be a sensitive and fast method of analysis for small proteins or peptides to yield specific biomarkers. In this study, a variety of normal and malignant endometrial tissue samples were fractionated and analyzed by SELDI-TOF MS (SELDI is a version of MALDI utilizing protein "chips"). A

number of proteins displayed differential expression in malignant endometrial tissues. One of the prominent proteins fractionated by weak cation exchange chromatography and displaying enhanced expression in these malignant tissues was identified as chaperonin 10. The increased expression of chaperonin 10 in malignant endometrial tissues was further confirmed by parallel Western blot and immunohistochemistry analyses.

=> dis ibib abs l12 1-3

L12 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:589208 CAPLUS
DOCUMENT NUMBER: 143:93565
TITLE: Marker proteins and methods for diagnosing endometrial cancer or phase
INVENTOR(S): Colgan, Terence J.; Siu, K. W. Michael; Romaschin, Alexander D.; Yang, Eric C. C.
PATENT ASSIGNEE(S): Mount Sinai Hospital, Can.; York University; University Health Network
SOURCE: PCT Int. Appl., 199 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005061725	A1	20050707	WO 2004-CA2172		20041221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2004303448	A1	20050707	AU 2004-303448		20041221
CA 2550900	A1	20050707	CA 2004-2550900		20041221
EP 1711618	A1	20061018	EP 2004-802347		20041221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS					
US 20080226554	A1	20080918	US 2007-584207		20071128
PRIORITY APPLN. INFO.:			US 2003-532601P	P	20031223
			US 2004-630990P	P	20041124
			WO 2004-CA2172	W	20041221

AB Methods for detecting endometrial diseases or an endometrium phase in a subject are described comprising measuring endometrial markers or polynucleotides encoding the markers in a sample from the subject. The invention also provides localization or imaging methods for endometrial diseases, and kits for carrying out the methods of the invention. The invention also contemplates therapeutic applications for endometrial diseases employing endometrial markers, polynucleotides encoding the markers, and/or binding agents for the markers. Thus, isotope-coded affinity tag (ICAT) anal. was used to identify differentially expressed proteins in proliferative and secretory endometria as well as in normal and cancerous endometrial tissues.
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 3 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2005247858 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15816004
TITLE: A strategy for high-resolution protein identification in surface-enhanced laser desorption/ionization mass spectrometry: calgranulin A and chaperonin 10 as protein markers for endometrial carcinoma.
AUTHOR: Guo Jingzhong; Yang Eric C C; Desouza Leroi; Diehl Georg; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, Toronto, Ontario, Canada.
SOURCE: Proteomics, (2005 May) Vol. 5, No. 7, pp. 1953-66. Journal code: 101092707. ISSN: 1615-9853. L-ISSN: 1615-9853.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200512
ENTRY DATE: Entered STN: 12 May 2005
Last Updated on STN: 14 Dec 2005
Entered Medline: 6 Dec 2005

AB Surface-enhanced laser desorption/ionization-mass spectrometry (SELDI-MS) has conventionally been practiced on linear time of flight (TOF) which has low mass accuracy and resolution. Here we demonstrate in an examination of both malignant and nonmalignant endometrial tissue homogenates that high mass accuracy and resolution in the MS stage are crucial. Using a commercially available quadrupole/TOF (QqTOF), we were able to resolve two potential cancer markers, subsequently identified off-line as chaperonin 10 and calgranulin A, that differ by 8 Da in mass. Two off-line protein identification protocols were developed: the first was based on size-exclusion chromatography (SEC), sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), protein extraction, trypsin digestion, and matrix-assisted laser desorption/ionization-tandem MS (MALDI-MS/MS); the second on SEC and shotgun nano-liquid chromatography (nanoLC)-MS/MS. Analyses on a cohort of 44 endometrial homogenates showed 22 out of 23 nonmalignant samples had nondetectable to very low abundance of chaperonin 10 and calgranulin A; 17 of the 21 malignant samples had detectable to abundant levels of both proteins. Immunohistochemical staining of a tissue microarray of 32 samples showed that approximately half of malignant endometrial tissues exhibited positive staining for calgranulin A in the malignant epithelium, while 9 out of 10 benign tissues exhibited negative epithelial staining. In addition, macrophages/granulocytes in malignant as well as nonmalignant tissues showed positive staining. No immunostaining occurred in stroma or myometrium. Calgranulin A, in combination with chaperonin 10 and other proteins, may eventually constitute a panel of markers to permit diagnosis and screening of endometrial cancer.

L12 ANSWER 3 OF 3 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2004350547 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15253447
TITLE: Protein expression profiling of endometrial malignancies reveals a new tumor marker: chaperonin 10
.
AUTHOR: Yang Eric C C; Guo Jingzhong; Diehl Georg;

DeSouza Leroi; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry, Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada M3J 1P3.
SOURCE: Journal of proteome research, (2004 May-Jun) Vol. 3, No. 3, pp. 636-43.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200412
ENTRY DATE: Entered STN: 16 Jul 2004
Last Updated on STN: 21 Dec 2004
Entered Medline: 20 Dec 2004

AB Endometrial carcinoma is a common malignancy in women, being exceeded in incidence only by that of breast, lung, and colorectal cancers. At present, no serum tumor markers are available for the monitoring of endometrial carcinoma patients, and patients with recurrent disease are detected only following the development of symptoms or abnormalities in imaging assessments. Similarly, no screening tools are available for endometrial carcinoma. Protein profiling by matrix-assisted laser desorption/ionization-time-of-flight mass spectrometry (MALDI-TOF MS) has proven to be a sensitive and fast method of analysis for small proteins or peptides to yield specific biomarkers. In this study, a variety of normal and malignant endometrial tissue samples were fractionated and analyzed by SELDI-TOF MS (SELDI is a version of MALDI utilizing protein "chips"). A number of proteins displayed differential expression in malignant endometrial tissues. One of the prominent proteins fractionated by weak cation exchange chromatography and displaying enhanced expression in these malignant tissues was identified as chaperonin 10.
The increased expression of chaperonin 10 in malignant endometrial tissues was further confirmed by parallel Western blot and immunohistochemistry analyses.

=> dis ibib abs l15 1-8

L15 ANSWER 1 OF 8 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2007426151 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17552551
TITLE: Verification of endometrial tissue biomarkers previously discovered using mass spectrometry-based proteomics by means of immunohistochemistry in a tissue microarray format.
AUTHOR: Dube Valerie; Grigull Jorg; DeSouza Leroi V; Ghanny Shaun; Colgan Terence J; Romaschin Alexander D; Siu K W Michael
CORPORATE SOURCE: Pathology and Laboratory Medicine, Mount Sinai Hospital, 600 University Avenue, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2007 Jul) Vol. 6, No. 7, pp. 2648-55. Electronic Publication: 2007-06-07.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 25 Jul 2007
Last Updated on STN: 31 Aug 2007
Entered Medline: 30 Aug 2007

AB Verification of candidate protein biomarkers is a necessary step in moving from the initial discovery to application. Here, we report results of a verification exercise involving six candidate endometrial cancer biomarkers previously discovered using mass-tagging and multidimensional liquid chromatography/tandem mass spectrometry (DeSouza L., et al. J. Proteome Res. 2005, 4, 377-386) on a cohort of 148 patient samples by means of immunohistochemistry on a tissue microarray format. A panel of the three best-performing biomarkers, chaperonin 10, pyruvate kinase M2, and alpha-1-antitrypsin, achieved a sensitivity of 0.85, specificity of 0.93, predictive value of 0.90, and positive predictive value of 0.88 in discriminating malignant from benign endometrium. The ruggedness of this panel of biomarkers was verified in a 2/3-training-set-1/3-test-set cross-validation analysis by randomly splitting the cohort in 10 ways. The roles of chaperonin 10 and pyruvate kinase M2 in tumorigenesis confirm them as credible cancer biomarkers.

L15 ANSWER 2 OF 8 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2007426087 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17523614
TITLE: Identification of candidate biomarker proteins released by human endometrial and cervical cancer cells using two-dimensional liquid chromatography/tandem mass spectrometry.
AUTHOR: Li Hongyan; DeSouza Leroi V; Ghanny Shaun; Li Wei; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Biology, Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2007 Jul) Vol. 6, No. 7, pp. 2615-22. Electronic Publication: 2007-05-25.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 25 Jul 2007
Last Updated on STN: 31 Aug 2007
Entered Medline: 30 Aug 2007

AB Candidate biomarker proteins, including chaperonin 10 and pyruvate kinase, previously discovered and identified using mass-tagging reagents with multidimensional liquid chromatography and tandem mass spectrometry (DeSouza, L.; et al. J. Proteome Res. 2005, 4, 377-386) have been identified in serum-free media of cultured endometrial cancer (KLE and HEC-1-A) and cervical cancer (HeLa) cells. These and other cancer-associated proteins were released by the cultured cells within 24 h of growth. A total of 203 proteins from the KLE cells, 86 from HEC-1-A, and 161 from HeLa are reported.

L15 ANSWER 3 OF 8 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2007397504 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17374602
TITLE: Endometrial carcinoma biomarker discovery and verification using differentially tagged clinical samples with

multidimensional liquid chromatography and tandem mass spectrometry.
AUTHOR: DeSouza Leroi V; Grigull Jorg; Ghanny Shaun; Dube Valerie; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry, York University, 4700 Keele Street, Toronto, Ontario M2J 1P3, Canada.
SOURCE: Molecular & cellular proteomics : MCP, (2007 Jul) Vol. 6, No. 7, pp. 1170-82. Electronic Publication: 2007-03-19.
Journal code: 101125647. ISSN: 1535-9476. L-ISSN: 1535-9476.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 10 Jul 2007
Last Updated on STN: 29 Aug 2007
Entered Medline: 28 Aug 2007

AB The utility of differentially expressed proteins discovered and identified in an earlier study (DeSouza, L., Diehl, G., Rodrigues, M. J., Guo, J., Romaschin, A. D., Colgan, T. J., and Siu, K. W. M. (2005) Search for cancer markers from endometrial tissues using differentially labeled tags iTRAQ and cleavable ICAT with multidimensional liquid chromatography and tandem mass spectrometry. J. Proteome Res. 4, 377-386) to discriminate malignant and benign endometrial tissue samples was verified in a 40-sample iTRAQ (isobaric tags for relative and absolute quantitation) labeling study involving normal proliferative and secretory samples and Types I and II endometrial cancer samples. None of these proteins had the sensitivity and specificity to be used individually to discriminate between normal and cancer samples. However, a panel of pyruvate kinase, chaperonin 10, and alpha1-antitrypsin achieved the best results with a sensitivity, specificity, predictive value, and positive predictive value of 0.95 each in a logistic regression analysis. In addition, three new potential markers were discovered, whereas two other proteins showed promising trends but were not detected in sufficient numbers of samples to permit statistical validation. Differential expressions of some of these candidate biomarkers were independently verified using immunohistochemistry.

L15 ANSWER 4 OF 8 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 2005511671 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16134212
TITLE: Direct analysis of laser capture microdissected endometrial carcinoma and epithelium by matrix-assisted laser desorption/ionization mass spectrometry.
AUTHOR: Guo Jingzhong; Colgan Terence J; DeSouza Leroi V; Rodrigues Mary Joe; Romaschin Alexander D; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada M3J 1P3.
SOURCE: Rapid communications in mass spectrometry : RCM, (2005) Vol. 19, No. 19, pp. 2762-6.
Journal code: 8802365. ISSN: 0951-4198. L-ISSN: 0951-4198.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200511

ENTRY DATE: Entered STN: 27 Sep 2005
Last Updated on STN: 8 Nov 2005
Entered Medline: 7 Nov 2005

AB Direct analysis of laser capture microdissected malignant and normal endometrial epithelium using matrix-assisted laser desorption/ionization (MALDI) time-of-flight mass spectrometry (MS) was able to detect a number of proteins that are overexpressed in malignant epithelial cells. A total of 16 physiologic and malignant endometrial samples were laser capture microdissected, including four proliferative and four secretory endometria, and eight endometrioid adenocarcinomas. Two of these proteins, at 10,834 and 10,843 Da, likely correspond to calgranulin A and chaperonin 10, two proteins that had previously been identified in endometrioid adenocarcinoma in whole tissue homogenate by MS analysis. Direct analysis by MALDI-MS not only confirms that these proteins are overexpressed in endometrial carcinoma, but also localizes them to the epithelial cells, the expected cancer site.

L15 ANSWER 5 OF 8 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2005247858 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15816004
TITLE: A strategy for high-resolution protein identification in surface-enhanced laser desorption/ionization mass spectrometry: calgranulin A and chaperonin 10 as protein markers for endometrial carcinoma.
AUTHOR: Guo Jingzhong; Yang Eric C C; Desouza Leroi; Diehl Georg; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, Toronto, Ontario, Canada.
SOURCE: Proteomics, (2005 May) Vol. 5, No. 7, pp. 1953-66.
Journal code: 101092707. ISSN: 1615-9853. L-ISSN: 1615-9853.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200512
ENTRY DATE: Entered STN: 12 May 2005
Last Updated on STN: 14 Dec 2005
Entered Medline: 6 Dec 2005

AB Surface-enhanced laser desorption/ionization-mass spectrometry (SELDI-MS) has conventionally been practiced on linear time of flight (TOF) which has low mass accuracy and resolution. Here we demonstrate in an examination of both malignant and nonmalignant endometrial tissue homogenates that high mass accuracy and resolution in the MS stage are crucial. Using a commercially available quadrupole/TOF (QqTOF), we were able to resolve two potential cancer markers, subsequently identified off-line as chaperonin 10 and calgranulin A, that differ by 8 Da in mass. Two off-line protein identification protocols were developed: the first was based on size-exclusion chromatography (SEC), sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), protein extraction, trypsin digestion, and matrix-assisted laser desorption/ionization-tandem MS (MALDI-MS/MS); the second on SEC and shotgun nano-liquid chromatography (nanoLC)-MS/MS. Analyses on a cohort of 44 endometrial homogenates showed 22 out of 23 nonmalignant samples had nondetectable to very low abundance of chaperonin 10 and calgranulin A; 17 of the 21 malignant samples had detectable to abundant levels of both proteins. Immunohistochemical staining of a tissue microarray of 32 samples showed that approximately half of malignant endometrial tissues exhibited positive staining for calgranulin A in the malignant epithelium, while 9

out of 10 benign tissues exhibited negative epithelial staining. In addition, macrophages/granulocytes in malignant as well as nonmalignant tissues showed positive staining. No immunostaining occurred in stroma or myometrium. Calgranulin A, in combination with chaperonin 10 and other proteins, may eventually constitute a panel of markers to permit diagnosis and screening of endometrial cancer.

L15 ANSWER 6 OF 8 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 2005217877 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15822913
TITLE: Search for cancer markers from endometrial tissues using differentially labeled tags iTRAQ and cICAT with multidimensional liquid chromatography and tandem mass spectrometry.
AUTHOR: DeSouza Leroi; Diehl Georg; Rodrigues Mary Joe; Guo Jingzhong; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, York University, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2005 Mar-Apr) Vol. 4, No. 2, pp. 377-86.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200507
ENTRY DATE: Entered STN: 28 Apr 2005
Last Updated on STN: 29 Jul 2005
Entered Medline: 28 Jul 2005

AB A total of nine potential markers for endometrial cancer (EmCa) have been discovered and identified from endometrial tissue homogenates using a combination of differentially labeled tags, iTRAQ and cICAT, with multidimensional liquid chromatography and tandem mass spectrometry. The tissues were snap frozen in liquid nitrogen within 15-20 min after devitalization. Samples for proteomic analysis were treated with protease inhibitors before processing. Marker proteins that were overexpressed in EmCa are chaperonin 10, pyruvate kinase M1 or M2 isozyme, calgizzarin, heterogeneous nuclear ribonucleoprotein D0, macrophage migratory inhibitory factor, and polymeric immunoglobulin receptor precursor; those that were underexpressed are alpha-1-antitrypsin precursor, creatine kinase B, and transgelin. The chaperonin 10 result confirms our earlier observation of overexpression in EmCa tissues using surface-enhanced laser desorption/ionization mass spectrometry, verified by Western analysis and immunohistochemistry [Yang, E. C. C. et al. J. Proteome Res. 2004, 3, 636-643]. Pyruvate kinase was observed to be overexpressed using both iTRAQ and cICAT labeling. All nine markers have been found to be associated with various forms of cancer. A panel of these plus other markers may confer sufficient selectivity for diagnosing and screening of EmCa. The use of cICAT led to identification of a higher proportion of lower-abundance signaling proteins; conversely, iTRAQ resulted in a higher percentage of the more abundant ribosomal proteins and transcription factors.

L15 ANSWER 7 OF 8 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 2008:561659 BIOSIS
DOCUMENT NUMBER: PREV200800561658
TITLE: Endometrial cancer marker discovery using differentially labelled clinical samples.
AUTHOR(S): Desouza, L. [Reprint Author]; Guo, J.; Alhaq, M.;

Romaschin, A.; Colgan, T.; Siu, K.
CORPORATE SOURCE: York Univ, Toronto, ON M3J 2R7, Canada
SOURCE: Molecular & Cellular Proteomics, (AUG 2005) Vol. 4, No. 8, Suppl. 1, pp. S318.
Meeting Info.: 4th Annual World Congress of the Human-Proteome-Organisation (HUPO). Munich, GERMANY. August 28 -September 01, 2005. Human Proteome Org.
ISSN: 1535-9476.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Oct 2008
Last Updated on STN: 15 Oct 2008

L15 ANSWER 8 OF 8 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2004350547 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15253447
TITLE: Protein expression profiling of endometrial malignancies reveals a new tumor marker: chaperonin 10
.
AUTHOR: Yang Eric C C; Guo Jingzhong; Diehl Georg; DeSouza Leroi; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry, Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada M3J 1P3.
SOURCE: Journal of proteome research, (2004 May-Jun) Vol. 3, No. 3, pp. 636-43.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200412
ENTRY DATE: Entered STN: 16 Jul 2004
Last Updated on STN: 21 Dec 2004
Entered Medline: 20 Dec 2004

AB Endometrial carcinoma is a common malignancy in women, being exceeded in incidence only by that of breast, lung, and colorectal cancers. At present, no serum tumor markers are available for the monitoring of endometrial carcinoma patients, and patients with recurrent disease are detected only following the development of symptoms or abnormalities in imaging assessments. Similarly, no screening tools are available for endometrial carcinoma. Protein profiling by matrix-assisted laser desorption/ionization-time-of-flight mass spectrometry (MALDI-TOF MS) has proven to be a sensitive and fast method of analysis for small proteins or peptides to yield specific biomarkers. In this study, a variety of normal and malignant endometrial tissue samples were fractionated and analyzed by SELDI-TOF MS (SELDI is a version of MALDI utilizing protein "chips"). A number of proteins displayed differential expression in malignant endometrial tissues. One of the prominent proteins fractionated by weak cation exchange chromatography and displaying enhanced expression in these malignant tissues was identified as chaperonin 10.
The increased expression of chaperonin 10 in malignant endometrial tissues was further confirmed by parallel Western blot and immunohistochemistry analyses.

=> dis ibib abs l18 1-3

L18 ANSWER 1 OF 3 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2005247858 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15816004
TITLE: A strategy for high-resolution protein identification in surface-enhanced laser desorption/ionization mass spectrometry: calgranulin A and chaperonin 10 as protein markers for endometrial carcinoma.
AUTHOR: Guo Jingzhong; Yang Eric C C; Desouza Leroi; Diehl Georg; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, Toronto, Ontario, Canada.
SOURCE: Proteomics, (2005 May) Vol. 5, No. 7, pp. 1953-66. Journal code: 101092707. ISSN: 1615-9853. L-ISSN: 1615-9853.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200512
ENTRY DATE: Entered STN: 12 May 2005
Last Updated on STN: 14 Dec 2005
Entered Medline: 6 Dec 2005

AB Surface-enhanced laser desorption/ionization-mass spectrometry (SELDI-MS) has conventionally been practiced on linear time of flight (TOF) which has low mass accuracy and resolution. Here we demonstrate in an examination of both malignant and nonmalignant endometrial tissue homogenates that high mass accuracy and resolution in the MS stage are crucial. Using a commercially available quadrupole/TOF (QqTOF), we were able to resolve two potential cancer markers, subsequently identified off-line as chaperonin 10 and calgranulin A, that differ by 8 Da in mass. Two off-line protein identification protocols were developed: the first was based on size-exclusion chromatography (SEC), sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), protein extraction, trypsin digestion, and matrix-assisted laser desorption/ionization-tandem MS (MALDI-MS/MS); the second on SEC and shotgun nano-liquid chromatography (nanoLC)-MS/MS. Analyses on a cohort of 44 endometrial homogenates showed 22 out of 23 nonmalignant samples had nondetectable to very low abundance of chaperonin 10 and calgranulin A; 17 of the 21 malignant samples had detectable to abundant levels of both proteins. Immunohistochemical staining of a tissue microarray of 32 samples showed that approximately half of malignant endometrial tissues exhibited positive staining for calgranulin A in the malignant epithelium, while 9 out of 10 benign tissues exhibited negative epithelial staining. In addition, macrophages/granulocytes in malignant as well as nonmalignant tissues showed positive staining. No immunostaining occurred in stroma or myometrium. Calgranulin A, in combination with chaperonin 10 and other proteins, may eventually constitute a panel of markers to permit diagnosis and screening of endometrial cancer.

L18 ANSWER 2 OF 3 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2005217877 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15822913
TITLE: Search for cancer markers from endometrial tissues using differentially labeled tags iTRAQ and cICAT with multidimensional liquid chromatography and tandem mass spectrometry.
AUTHOR: DeSouza Leroi; Diehl Georg; Rodrigues Mary Joe; Guo Jingzhong; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass

Spectrometry, York University, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2005 Mar-Apr) Vol. 4, No. 2, pp. 377-86.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200507
ENTRY DATE: Entered STN: 28 Apr 2005
Last Updated on STN: 29 Jul 2005
Entered Medline: 28 Jul 2005

AB A total of nine potential markers for endometrial cancer (EmCa) have been discovered and identified from endometrial tissue homogenates using a combination of differentially labeled tags, iTRAQ and cICAT, with multidimensional liquid chromatography and tandem mass spectrometry. The tissues were snap frozen in liquid nitrogen within 15-20 min after devitalization. Samples for proteomic analysis were treated with protease inhibitors before processing. Marker proteins that were overexpressed in EmCa are chaperonin 10, pyruvate kinase M1 or M2 isozyme, calgizzarin, heterogeneous nuclear ribonucleoprotein D0, macrophage migratory inhibitory factor, and polymeric immunoglobulin receptor precursor; those that were underexpressed are alpha-1-antitrypsin precursor, creatine kinase B, and transgelin. The chaperonin 10 result confirms our earlier observation of overexpression in EmCa tissues using surface-enhanced laser desorption/ionization mass spectrometry, verified by Western analysis and immunohistochemistry [Yang, E. C. C. et al. J. Proteome Res. 2004, 3, 636-643]. Pyruvate kinase was observed to be overexpressed using both iTRAQ and cICAT labeling. All nine markers have been found to be associated with various forms of cancer. A panel of these plus other markers may confer sufficient selectivity for diagnosing and screening of EmCa. The use of cICAT led to identification of a higher proportion of lower-abundance signaling proteins; conversely, iTRAQ resulted in a higher percentage of the more abundant ribosomal proteins and transcription factors.

L18 ANSWER 3 OF 3 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2004350547 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15253447
TITLE: Protein expression profiling of endometrial malignancies reveals a new tumor marker: chaperonin 10
.
AUTHOR: Yang Eric C C; Guo Jingzhong; Diehl Georg; DeSouza Leroi; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry, Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada M3J 1P3.
SOURCE: Journal of proteome research, (2004 May-Jun) Vol. 3, No. 3, pp. 636-43.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200412
ENTRY DATE: Entered STN: 16 Jul 2004
Last Updated on STN: 21 Dec 2004

Entered Medline: 20 Dec 2004

AB Endometrial carcinoma is a common malignancy in women, being exceeded in incidence only by that of breast, lung, and colorectal cancers. At present, no serum tumor markers are available for the monitoring of endometrial carcinoma patients, and patients with recurrent disease are detected only following the development of symptoms or abnormalities in imaging assessments. Similarly, no screening tools are available for endometrial carcinoma. Protein profiling by matrix-assisted laser desorption/ionization-time-of-flight mass spectrometry (MALDI-TOF MS) has proven to be a sensitive and fast method of analysis for small proteins or peptides to yield specific biomarkers. In this study, a variety of normal and malignant endometrial tissue samples were fractionated and analyzed by SELDI-TOF MS (SELDI is a version of MALDI utilizing protein "chips"). A number of proteins displayed differential expression in malignant endometrial tissues. One of the prominent proteins fractionated by weak cation exchange chromatography and displaying enhanced expression in these malignant tissues was identified as chaperonin 10.
The increased expression of chaperonin 10 in malignant endometrial tissues was further confirmed by parallel Western blot and immunohistochemistry analyses.

=> dis ibib abs l21 1-6

L21 ANSWER 1 OF 6 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2005511671 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16134212
TITLE: Direct analysis of laser capture microdissected endometrial carcinoma and epithelium by matrix-assisted laser desorption/ionization mass spectrometry.
AUTHOR: Guo Jingzhong; Colgan Terence J; DeSouza Leroi V; Rodrigues Mary Joe; Romaschin Alexander D; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada M3J 1P3.
SOURCE: Rapid communications in mass spectrometry : RCM, (2005) Vol. 19, No. 19, pp. 2762-6.
Journal code: 8802365. ISSN: 0951-4198. L-ISSN: 0951-4198.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200511
ENTRY DATE: Entered STN: 27 Sep 2005
Last Updated on STN: 8 Nov 2005
Entered Medline: 7 Nov 2005

AB Direct analysis of laser capture microdissected malignant and normal endometrial epithelium using matrix-assisted laser desorption/ionization (MALDI) time-of-flight mass spectrometry (MS) was able to detect a number of proteins that are overexpressed in malignant epithelial cells. A total of 16 physiologic and malignant endometrial samples were laser capture microdissected, including four proliferative and four secretory endometria, and eight endometrioid adenocarcinomas. Two of these proteins, at 10,834 and 10,843 Da, likely correspond to calgranulin A and chaperonin 10, two proteins that had previously been identified in endometrioid adenocarcinoma in whole tissue homogenate by MS analysis. Direct analysis by MALDI-MS not only confirms that these proteins are overexpressed in endometrial carcinoma, but also localizes them to the epithelial cells, the expected cancer site.

L21 ANSWER 2 OF 6 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2005247858 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15816004
TITLE: A strategy for high-resolution protein identification in surface-enhanced laser desorption/ionization mass spectrometry: calgranulin A and chaperonin 10 as protein markers for endometrial carcinoma.
AUTHOR: Guo Jingzhong; Yang Eric C C; Desouza Leroi; Diehl Georg; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, Toronto, Ontario, Canada.
SOURCE: Proteomics, (2005 May) Vol. 5, No. 7, pp. 1953-66. Journal code: 101092707. ISSN: 1615-9853. L-ISSN: 1615-9853.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200512
ENTRY DATE: Entered STN: 12 May 2005
Last Updated on STN: 14 Dec 2005
Entered Medline: 6 Dec 2005

AB Surface-enhanced laser desorption/ionization-mass spectrometry (SELDI-MS) has conventionally been practiced on linear time of flight (TOF) which has low mass accuracy and resolution. Here we demonstrate in an examination of both malignant and nonmalignant endometrial tissue homogenates that high mass accuracy and resolution in the MS stage are crucial. Using a commercially available quadrupole/TOF (QqTOF), we were able to resolve two potential cancer markers, subsequently identified off-line as chaperonin 10 and calgranulin A, that differ by 8 Da in mass. Two off-line protein identification protocols were developed: the first was based on size-exclusion chromatography (SEC), sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), protein extraction, trypsin digestion, and matrix-assisted laser desorption/ionization-tandem MS (MALDI-MS/MS); the second on SEC and shotgun nano-liquid chromatography (nanoLC)-MS/MS. Analyses on a cohort of 44 endometrial homogenates showed 22 out of 23 nonmalignant samples had nondetectable to very low abundance of chaperonin 10 and calgranulin A; 17 of the 21 malignant samples had detectable to abundant levels of both proteins. Immunohistochemical staining of a tissue microarray of 32 samples showed that approximately half of malignant endometrial tissues exhibited positive staining for calgranulin A in the malignant epithelium, while 9 out of 10 benign tissues exhibited negative epithelial staining. In addition, macrophages/granulocytes in malignant as well as nonmalignant tissues showed positive staining. No immunostaining occurred in stroma or myometrium. Calgranulin A, in combination with chaperonin 10 and other proteins, may eventually constitute a panel of markers to permit diagnosis and screening of endometrial cancer.

L21 ANSWER 3 OF 6 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2005217877 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15822913
TITLE: Search for cancer markers from endometrial tissues using differentially labeled tags iTRAQ and cICAT with multidimensional liquid chromatography and tandem mass spectrometry.
AUTHOR: DeSouza Leroi; Diehl Georg; Rodrigues Mary Joe; Guo Jingzhong; Romaschin Alexander D; Colgan Terence J; Siu K W Michael

CORPORATE SOURCE: Department of Chemistry and Centre for Research in Mass Spectrometry, York University, Toronto, Ontario, Canada.
SOURCE: Journal of proteome research, (2005 Mar-Apr) Vol. 4, No. 2, pp. 377-86.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200507
ENTRY DATE: Entered STN: 28 Apr 2005
Last Updated on STN: 29 Jul 2005
Entered Medline: 28 Jul 2005

AB A total of nine potential markers for endometrial cancer (EmCa) have been discovered and identified from endometrial tissue homogenates using a combination of differentially labeled tags, iTRAQ and cICAT, with multidimensional liquid chromatography and tandem mass spectrometry. The tissues were snap frozen in liquid nitrogen within 15-20 min after devitalization. Samples for proteomic analysis were treated with protease inhibitors before processing. Marker proteins that were overexpressed in EmCa are chaperonin 10, pyruvate kinase M1 or M2 isozyme, calgizzarin, heterogeneous nuclear ribonucleoprotein D0, macrophage migratory inhibitory factor, and polymeric immunoglobulin receptor precursor; those that were underexpressed are alpha-1-antitrypsin precursor, creatine kinase B, and transgelin. The chaperonin 10 result confirms our earlier observation of overexpression in EmCa tissues using surface-enhanced laser desorption/ionization mass spectrometry, verified by Western analysis and immunohistochemistry [Yang, E. C. C. et al. J. Proteome Res. 2004, 3, 636-643]. Pyruvate kinase was observed to be overexpressed using both iTRAQ and cICAT labeling. All nine markers have been found to be associated with various forms of cancer. A panel of these plus other markers may confer sufficient selectivity for diagnosing and screening of EmCa. The use of cICAT led to identification of a higher proportion of lower-abundance signaling proteins; conversely, iTRAQ resulted in a higher percentage of the more abundant ribosomal proteins and transcription factors.

L21 ANSWER 4 OF 6 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 2008:561659 BIOSIS
DOCUMENT NUMBER: PREV200800561658
TITLE: Endometrial cancer marker discovery using differentially labelled clinical samples.
AUTHOR(S): Desouza, L. [Reprint Author]; Guo, J.; Alhaq, M.; Romaschin, A.; Colgan, T.; Siu, K.
CORPORATE SOURCE: York Univ, Toronto, ON M3J 2R7, Canada
SOURCE: Molecular & Cellular Proteomics, (AUG 2005) Vol. 4, No. 8, Suppl. 1, pp. S318.
Meeting Info.: 4th Annual World Congress of the Human-Proteome-Organisation (HUPO). Munich, GERMANY. August 28 -September 01, 2005. Human Proteome Org.
ISSN: 1535-9476.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Oct 2008
Last Updated on STN: 15 Oct 2008

L21 ANSWER 5 OF 6 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 2004350547 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15253447

TITLE: Protein expression profiling of endometrial malignancies reveals a new tumor marker: chaperonin 10
.
AUTHOR: Yang Eric C C; Guo Jingzhong; Diehl Georg; DeSouza Leroi; Rodrigues Mary Joe; Romaschin Alexander D; Colgan Terence J; Siu K W Michael
CORPORATE SOURCE: Department of Chemistry, Centre for Research in Mass Spectrometry, York University, 4700 Keele Street, Toronto, Ontario, Canada M3J 1P3.
SOURCE: Journal of proteome research, (2004 May-Jun) Vol. 3, No. 3, pp. 636-43.
Journal code: 101128775. ISSN: 1535-3893. L-ISSN: 1535-3893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200412
ENTRY DATE: Entered STN: 16 Jul 2004
Last Updated on STN: 21 Dec 2004
Entered Medline: 20 Dec 2004

AB Endometrial carcinoma is a common malignancy in women, being exceeded in incidence only by that of breast, lung, and colorectal cancers. At present, no serum tumor markers are available for the monitoring of endometrial carcinoma patients, and patients with recurrent disease are detected only following the development of symptoms or abnormalities in imaging assessments. Similarly, no screening tools are available for endometrial carcinoma. Protein profiling by matrix-assisted laser desorption/ionization-time-of-flight mass spectrometry (MALDI-TOF MS) has proven to be a sensitive and fast method of analysis for small proteins or peptides to yield specific biomarkers. In this study, a variety of normal and malignant endometrial tissue samples were fractionated and analyzed by SELDI-TOF MS (SELDI is a version of MALDI utilizing protein "chips"). A number of proteins displayed differential expression in malignant endometrial tissues. One of the prominent proteins fractionated by weak cation exchange chromatography and displaying enhanced expression in these malignant tissues was identified as chaperonin 10.
The increased expression of chaperonin 10 in malignant endometrial tissues was further confirmed by parallel Western blot and immunohistochemistry analyses.

L21 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1996:21525 CAPLUS
DOCUMENT NUMBER: 124:79936
ORIGINAL REFERENCE NO.: 124:14833a,14836a
TITLE: Purification of chaperone protein GroE and its role in refolding of protein
AUTHOR(S): Zheng, Pinghua; Lu, Feng; Guo, Jia; Lu, Deru
CORPORATE SOURCE: Inst. Medical Biotechnol. Mol. Genetics, Second Military Medical Univ., Shanghai, 20043, Peop. Rep. China
SOURCE: Gaojishu Tongxun (1995), 5(8), 44-7
CODEN: GTONE8; ISSN: 1002-0470
PUBLISHER: Gaojishu Tongxun Zazhishe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Found in recent years, Chaperonins are a class of proteins which catalyze protein folding reaction. The authors purified the GroEL and GroES. During the renaturation process of recombinant human gamma interferon (rhIFN-γ), the authors studied the ability of the GroEL and GroES to enhance renaturation. RhIFN-γ increased the yield of active protein

from 6.4% to more than 50%, specific activity from 6.6+104μ/mg to more than 1.0+107 μ/mg. Results indicate that Chaperonins have significance for the renaturation of proteins.

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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
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L2            30 SEA FILE=MFE SPE=ON  ABB=ON  PLU=ON  L1 AND CHAPERONIN(W) 10
L3            10 DUP REM L2 (20 DUPLICATES REMOVED)
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L7           352 SEA FILE=MFE SPE=ON  ABB=ON  PLU=ON  ROMASCHIN A?/AU
L8            30 SEA FILE=MFE SPE=ON  ABB=ON  PLU=ON  L7 AND CHAPERONIN(W) 10
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L10         3303 SEA FILE=MFE SPE=ON  ABB=ON  PLU=ON  YANG E?/AU
L11            9 SEA FILE=MFE SPE=ON  ABB=ON  PLU=ON  L10 AND CHAPERONIN(W) 10
L12            3 DUP REM L11 (6 DUPLICATES REMOVED)
L13          245 SEA FILE=MFE SPE=ON  ABB=ON  PLU=ON  DESOUZA L?/AU
L14           28 SEA FILE=MFE SPE=ON  ABB=ON  PLU=ON  L13 AND CHAPERONIN(W) 10
L15            8 DUP REM L14 (20 DUPLICATES REMOVED)
L16          119 SEA FILE=MFE SPE=ON  ABB=ON  PLU=ON  DIEHL G?/AU
L17           12 SEA FILE=MFE SPE=ON  ABB=ON  PLU=ON  L16 AND CHAPERONIN(W) 10
L18            3 DUP REM L17 (9 DUPLICATES REMOVED)
L19        21682 SEA FILE=MFE SPE=ON  ABB=ON  PLU=ON  GUO J?/AU
L20           17 SEA FILE=MFE SPE=ON  ABB=ON  PLU=ON  L19 AND CHAPERONIN(W) 10
L21            6 DUP REM L20 (11 DUPLICATES REMOVED)
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                 DIS IBIB ABS L6 1-11
                 DIS IBIB ABS L9 1-10
                 DIS IBIB ABS L12 1-3
                 DIS IBIB ABS L15 1-8
                 DIS IBIB ABS L18 1-3
                 DIS IBIB ABS L21 1-6
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FULL ESTIMATED COST                               112.73     113.17

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